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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/017,420	12/13/2001	Zo-Chun Jen	5540-002	6337

25184 7590 11/17/2003
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EXAMINER

AUGHENBAUGH, WALTER

ART UNIT	PAPER NUMBER
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1772

DATE MAILED: 11/17/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/017,420

Applicant(s)

JEN, ZO-CHUN

Examiner

Walter B Aughenbaugh

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 September 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 and 10-30 is/are pending in the application.
- 4a) Of the above claim(s) 1-6 and 14-20 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 7,8,10-13 and 21-30 is/are rejected.
- 7) ☒ Claim(s) 10-12 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Acknowledgement of Applicant's Amendments

1. The amendments made in claims 7, 21 and 26 in the Amendment filed September 2, 2003 (Paper 7) have been received and considered by Examiner.
2. The cancellation of claim 9 in Paper 7 has been acknowledged by Examiner.

WITHDRAWN REJECTIONS

3. The 35 U.S.C. 112 rejection of claim 7 in regard to the term "reduced" that is repeated in paragraph 6 of Paper 6 has been withdrawn due to Applicant's amendments to claim 7 in Paper 7. The phrase "and reduced bottle-to-bottle friction" at the end of claim 7 as drafted in Applicant's amendment filed April 16, 2003 (Paper 5) should appear in claim 7 as drafted in Paper 7 and should be lined through.
4. The 35 U.S.C. 103 rejections repeated in paragraphs 7 and 8 of Paper 6 have been withdrawn due to the arguments of Applicant on pages 7-10 of Paper 7 that support Applicant's fundamental argument that Pfeiffer et al. ('663) alone or Pfeiffer et al. ('663) and Pfeiffer et al. ('054) in combination do not explicitly teach that a bottle formed from the film of Pfeiffer et al. would be "characterized by an absence of visible haze" as claimed in the independent claims.
5. The 35 U.S.C. 103 rejections made of record in paragraphs 9-12 of Paper 6 have been withdrawn due to the arguments of Applicant on pages 7-10 of Paper 7 that support Applicant's fundamental argument that Pfeiffer et al. ('663) alone or Pfeiffer et al. ('663) and Pfeiffer et al. ('054) in combination do not explicitly teach that a bottle formed from the film of Pfeiffer et al. would be "characterized by an absence of visible haze" as claimed in the independent claims. Even though this is a moot point in terms of the future prosecution of the instant application,

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Examiner wishes to point out that Applicant's statement that "The only reference made to bottles in either of these patents is in the '054 patent..." made on page 9 of Paper 7 is incorrect; the '663 patent makes the same "reference made to bottles" that is made in the '054 patent, thus providing for the 35 U.S.C. 103 rejection of claim 7 over only Pfeiffer et al. ('663) made of record in paragraph 9 of Paper 6.

NEW OBJECTIONS

6. Claims 10-12 are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Barium sulfate, the sole subject matter of the limitations of claims 10-12, is not required by claim 7, the claim upon which claims 10-12 depend; the recitation "up to 0.1 % wt. of barium sulfate" reads on 0% barium sulfate, or, no barium sulfate. Therefore, claims 10-12 do not further limit the subject matter of claim 7 in the case where the polyester bottle does not comprise any barium sulfate.

NEW REJECTIONS

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(c) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

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8. Claims 7, 8 and 10-13 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Hepp. Hepp teaches a transparent two-liter polyethylene terephthalate polyester bottle (col. 1, lines 22-25). A transparent bottle is characterized by an absence of visible haze as claimed in claim 7.

9. Claims 7, 8, 10-13 and 21-24 are rejected under 35 U.S.C. 102(e) as being anticipated by Jalan.

In regard to claims 7 and 21, Jalan teaches a polyester bottle comprised of a polyester polymer (col. 10, lines 1 and 2) containing 1 to 5000 ppm, preferably 10 to 1000 ppm, more preferably 10 to 500 ppm (parts per million parts of the polyester) barium sulfate having an average particle size of from 0.0001 micron (preferably 0.001 micron or 0.01 micron) to less than 0.8 micron (col. 3, lines 20-24 and col. 2 lines 47-54 and 61-65). The ranges taught by Jalan regarding the amount of barium sulfate entirely encompass the range of "from about 0.005 to about 0.05 wt.%" (equivalently, 50 to 500 ppm) claimed in claim 21, and the ranges taught by Jalan regarding the particle size overlap with the range of "from about 0.1 to about 2.0 microns" claimed in claims 7 and 21. The ranges taught by Jalan regarding the amount of barium sulfate overlap with the range of "up to 0.1 wt.%" (equivalently, up to 1000 ppm) claimed in claim 7. Jalan teaches that the bottle is characterized by an absence of visible haze (i.e. the bottle is transparent, col. 3, lines 20-32).

The recitation "as a friction reducing additive" is an intended use limitation that has not been given patentable weight, since it has been held that a recitation with respect to the manner in which a claimed article is intended to be employed does not differentiate the claimed article from a prior art article satisfying the claimed structural limitations. *Ex parte Masham*, 2 USPQd

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1647 (1987). Barium sulfate is a friction reducing additive (i.e. an anti-blocking agent), as evidenced by col. 5, lines 5-16 of US 6,261,663 to Pfeiffer et al.

In regard to claims 8 and 22, Jalan teach that the polyester polymer is polyethylene terephthalate or modified polyethylene terephthalate (col. 2, lines 17-33, col. 3, lines 20-24 and col. 4, lines 30-40). In regard to claim 10, the ranges taught by Jalan regarding the amount of barium sulfate entirely encompass the range of “from about 0.005 to about 0.05 wt. %” (equivalently, 50 to 500 ppm) claimed in claim 10 (col. 3, lines 20-24 and col. 2 lines 47-54). In regard to claims 11 and 23, the ranges taught by Jalan regarding the particle size overlap with the range of “from about 0.2 to about 1.0 micron” claimed in claims 11 and 23 (col. 3, lines 20-24 and col. 2 lines 61-65). In regard to claim 12, the claimed values of 0.01 wt. % and 0.5 microns fall within the respective ranges taught by Jalan. In regard to claims 13 and 24, Jalan teaches that the bottle is a two-liter container (col. 8, lines 11-13); the recitation “beverage” (in claims 13 and 24) is an intended use limitation that has not been given patentable weight, since it has been held that a recitation with respect to the manner in which a claimed article is intended to be employed does not differentiate the claimed article from a prior art article satisfying the claimed structural limitations. *Ex parte Masham*, 2 USPQd 1647 (1987).

Claim Rejections - 35 USC § 103

10. Claims 13 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jalan.

Jalan teaches the polyester bottle as discussed above. Jalan fails to explicitly teach a two-liter polyester bottle comprising barium sulfate that is characterized by an absence of visible haze. Jalan, however, teaches that barium sulfate having the disclosed particle size is a suitable additive of a resin composition to be formed into a transparent bottle (col. 3, lines 20-24); i.e.

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that bottles comprising the barium sulfate taught by Jalan are transparent. Since Jalan teaches the formation of a two-liter bottle comprising fumed silicon dioxide as the additive (col. 7, lines 17-19 and col. 8, lines 11-13), since Jalan teaches that barium sulfate having the disclosed particle size is a suitable additive for forming a transparent bottle (col. 3, lines 20-24) and since Jalan teaches that particle size, and not the type of particle selected from the group of fumed silicon dioxide, barium sulfate and the other disclosed suitable additives, is the determining factor in whether or not a bottle formed from a resin composition comprising the additive is transparent because the particle size must be smaller than the wavelength of light (col. 3, lines 20-24), one of ordinary skill in the art would have recognized to have replaced the fumed silicon dioxide in the two liter bottle taught by Jalan with the barium sulfate taught by Jalan in order to achieve a transparent two liter bottle comprising barium sulfate as taught by Jalan.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have replaced the fumed silicon dioxide in the two liter bottle taught by Jalan with the barium sulfate taught by Jalan in order to achieve a transparent two liter bottle comprising barium sulfate as taught by Jalan.

11. Claims 25-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jalan and in further view of Beck et al.

In regard to claim 25, Jalan teaches the bottle as discussed above. Jalan fails to explicitly teach that the bottle has a wall thickness of from about 0.12 mm to about 0.65 mm. Beck et al., however, discloses a substantially transparent polyethylene terephthalate (PET) two-liter bottle (col. 2, lines 24-26, col. 4, lines 10-11 and col. 5, lines 20-26) having a wall thickness of 10-13 mils (equivalently 0.25 mm to 0.33 mm) (see first line of data provided in Table 1, col. 9).

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Therefore, one of ordinary skill in the art would have recognized to have formed the bottle taught by Jalan such that the wall thickness of the bottle is from 0.25 mm to 0.33 mm (a range which falls within the range claimed by Applicant in claim 25) since it is notoriously well known to form transparent polyester bottles having a wall thickness of from 0.25 mm to 0.33 mm as taught by Beck et al.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have formed the bottle taught by Jalan such that the wall thickness of the bottle is from 0.25 mm to 0.33 mm (a range which falls within the range claimed by Applicant in claim 25) since it is notoriously well known to form transparent polyester bottles having a wall thickness of from 0.25 mm to 0.33 mm as taught by Beck et al.

In regard to claim 26, Jalan teaches a polyester bottle comprised of a polyester polymer (col. 10, lines 1 and 2) containing 1 to 5000 ppm, preferably 10 to 1000 ppm, more preferably 10 to 500 ppm (parts per million parts of the polyester) barium sulfate having an average particle size of from 0.0001 micron (preferably 0.001 micron or 0.01 micron) to less than 0.8 micron (col. 3, lines 20-24 and col. 2 lines 47-54 and 61-65). The ranges taught by Jalan regarding the amount of barium sulfate entirely encompass the range of "from about 0.005 to about 0.05 wt.%" (equivalently, 50 to 500 ppm) claimed in claim 26, and the ranges taught by Jalan regarding the particle size overlap with the range of "from about 0.2 to about 1.0 micron" claimed in claim 26. Jalan teaches that the bottle is characterized by an absence of visible haze (i.e. the bottle is transparent, col. 3, lines 20-32).

The recitation "as a friction reducing additive" is an intended use limitation that has not been given patentable weight, since it has been held that a recitation with respect to the manner

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in which a claimed article is intended to be employed does not differentiate the claimed article from a prior art article satisfying the claimed structural limitations. *Ex parte Masham*, 2 USPQd 1647 (1987). Barium sulfate is a friction reducing additive (i.e. an anti-blocking agent), as evidenced by col. 5, lines 5-16 of US 6,261,663 to Pfeiffer et al.

Jalan fails to explicitly teach that the bottle has a wall thickness of from about 0.12 mm to about 0.65 mm.

Beck et al., however, discloses a substantially transparent polyethylene terephthalate (PET) two-liter bottle (col. 2, lines 24-26, col. 4, lines 10-11 and col. 5, lines 20-26) having a wall thickness of 10-13 mils (equivalently 0.25 mm to 0.33 mm) (see first line of data provided in Table 1, col. 9). Therefore, one of ordinary skill in the art would have recognized to have formed the bottle taught by Jalan such that the wall thickness of the bottle is from 0.25 mm to 0.33 mm (a range which falls within the range claimed by Applicant in claim 26) since it is notoriously well known to form transparent polyester bottles having a wall thickness of from 0.25 mm to 0.33 mm as taught by Beck et al.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have formed the bottle taught by Jalan such that the wall thickness of the bottle is from 0.25 mm to 0.33 mm (a range which falls within the range claimed by Applicant in claim 26) since it is notoriously well known to form transparent polyester bottles having a wall thickness of from 0.25 mm to 0.33 mm as taught by Beck et al.

In regard to claim 27, Jalan teach that the polyester polymer is polyethylene terephthalate or modified polyethylene terephthalate (col. 2, lines 17-33, col. 3, lines 20-24 and col. 4, lines

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30-40). In regard to claim 28, the claimed values of 0.01 wt.% and 0.5 microns fall within the respective ranges taught by Jalan.

In regard to claim 29, Jalan and Beck et al. teach the polyester bottle as discussed above. Jalan fails to explicitly teach a two-liter polyester bottle comprising barium sulfate that is characterized by an absence of visible haze. Jalan, however, teaches that barium sulfate having the disclosed particle size is a suitable additive of a resin composition to be formed into a transparent bottle (col. 3, lines 20-24); i.e. that bottles comprising the barium sulfate taught by Jalan are transparent. Since Jalan teaches the formation of a two-liter bottle comprising fumed silicon dioxide as the additive (col. 7, lines 17-19 and col. 8, lines 11-13), since Jalan teaches that barium sulfate having the disclosed particle size is a suitable additive for forming a transparent bottle (col. 3, lines 20-24), since Jalan teaches that particle size, and not the type of particle selected from the group of fumed silicon dioxide, barium sulfate and the other disclosed suitable additives, is the determining factor in whether or not a bottle formed from a resin composition comprising the additive is transparent because the particle size must be smaller than the wavelength of light (col. 3, lines 20-24), and since Beck et al. teach a substantially transparent two-liter polyester bottle (col. 2, lines 24-26, col. 4, lines 10-11 and col. 5, lines 20-26) having a wall thickness of from 0.25 mm to 0.33 mm, one of ordinary skill in the art would have recognized to have replaced the fumed silicon dioxide in the two liter bottle taught by Jalan with the barium sulfate taught by Jalan in order to achieve a transparent two liter bottle comprising barium sulfate as taught by Jalan since it is notoriously well known to form transparent two liter polyester bottles having a wall thickness of from 0.25 mm to 0.33 mm as taught by Beck et al.

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It would have been obvious to one of ordinary skill in the art at the time the invention was made to have replaced the fumed silicon dioxide in the two liter bottle taught by Jalan with the barium sulfate taught by Jalan in order to achieve a transparent two liter bottle comprising barium sulfate as taught by Jalan since it is notoriously well known to form transparent two liter polyester bottles having a wall thickness of from 0.25 mm to 0.33 mm as taught by Beck et al.

The recitation "beverage" (in claim 29) is an intended use limitation that has not been given patentable weight, since it has been held that a recitation with respect to the manner in which a claimed article is intended to be employed does not differentiate the claimed article from a prior art article satisfying the claimed structural limitations. *Ex parte Masham*, 2 USPQd 1647 (1987).

In regard to claim 30, the wall thickness range of from 0.25 mm to 0.33 mm taught by Beck et al. overlaps with the claimed range of "from about 0.2 mm to about 0.45 mm".

ANSWERS TO APPLICANT'S ARGUMENTS

12. Applicant's arguments on pages 7-10 of Paper 7 regarding the 35 U.S.C. 103 rejections repeated or made of record in paragraphs 7-12 of Paper 6 are rendered moot due to the withdrawal of these rejections in this Office Action (Paper 8).

Conclusion

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. US 3,953,655 to Steinkamp et al., US 4,001,172 to Steinkamp et al., US 4,397,916 to Nagano, US 5,082,717 to Yaguchi et al., US 5,357,014 to Uchida et al., US 6,087,001 to Jacquemet et al., US 6,214,426 to Kawachi et al., US 6,294,269 to Jacquemet et al., US 6,524,694 to Phillips and US 6,562,907 to Johoji et al.


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14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Walter B. Aughenbaugh whose telephone number is 703-305-4511. The examiner can normally be reached on Monday-Thursday from 9:00am to 6:00pm and on alternate Fridays from 9:00am to 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Harold Pyon, can be reached on 703-308-4251. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9310.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.

wba
11/07/03 WBA


HAROLD PYON
SUPERVISORY PATENT EXAMINER
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11/10/03